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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/604,816

08/19/2003

Xiankui Shi

1815

25859

7590

05/20/2004

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EXAMINER

PATEL, TULSIDAS C

ART UNIT

PAPER NUMBER

2839

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/604,816

Applicant(s)

SHI ET AL.

Examiner

T. C. Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***General Status***

1. This is a Final Action on the Merits. Claims 1-19 are pending in the case.

### ***Claim Objections***

2. Claim 1 is objected to because of the following informalities:

Claim 1, line 6, “though” should be changed to –through— and

Claim 1, line 10, “interferentially” should be changed to –interferingly--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1, it is not clear where the support for the recitation “the clasps of the terminal being curved”, and “the post-curved clasps having a portion to interferingly engage the latch at said channel thereby preventing the terminal from moving rearwardly”, is found in the specification.

Also, in claim 10, it is not clear where the support for the recitation “said at least one clasp is situated outside a corresponding channel and adjacent the housing and prone to abut against the latching member at one end of the channel to prevent the terminal from escaping when from a corresponding cavity of the housing when the terminal is urged rearwardly”.

Claim 14 also has similar recitation.

The amended claims introduce **new matter**.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 14-17 are rejected under 35 U.S.C. § 102(b) as being anticipated by Dinkel et al. (US 5,643,009).

For claim 14, Dinkel et al. in figures 1-11, discloses an electrical connector 12 and a cable, the connector including an insulative housing 14, defining a plurality of cavities 16 each adapted to receive a corresponding electrical terminal 70 therein and a latching member 34, the cable including a plurality of wires (not numbered, see figure 9 and 11), the silos of the latching member also restrict the terminals.

For claims 15-17, the details of terminal and its connection to the wire are shown in figures 10 and 11, the cavity of the housing and the latch member are designed such that the terminal is retained within the cavity due to element 78.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-11, 13, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dinkel et al. (US 5,643,009) in view of Yamanashi et al. (US 5,183,418).

For claims 1 and 10, Dinkel et al. in figures 1-11, discloses method of assembling an electrical connector 12 and a cable, the connector including an insulative housing 14, defining a plurality of cavities 16 each adapted to receive a corresponding electrical terminal 70 therein and a latching member 34. The terminal also has clasps at which are wrapped around the cable to make connection. The cable including a plurality of wires (not numbered, see figure 9 and 11), the method comprising the steps of extending wires of the cable through channels 34 (figure 11) of the latching member; attaching electrical terminals 70 to the wires of the cable; inserting the terminals into the cavities of the housing; and securing the latching member to the housing for locating the terminals in the cavities. However, Dinkel '009 discloses the terminal restricted in the middle. Yamanashi et al. in figure 1-3, discloses the terminal retrained in the channel at the end of the clasps. Therefore, it would have been obvious to one of ordinary

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skill in the art at the time the invention was made to modify in the connector of Dinkel et al. and provide latching member restricting the terminal clasps as taught by Yamanashi et al., so that the terminal length can be reduced.

For claim 2, the latching member of Dinkel et al. comprises a base plate 38, and a plurality of silos 44 extending from the base plate. For claims 3, 4 and 13 the base plate comprises a plurality of latches 50 and the housing comprises a plurality of blocks 60 provided thereon, the blocks engaging with the latches of the latching member.

For claim 5, each of the silos 44 of the latching member is in alignment with a corresponding cavity of the housing and can be inserted into the cavity when the latching member is secured to the housing (figure 6). For claim 6 the silo comprises a central channel extending therethrough, a diameter of the channel is slightly larger than that of the wire (figure 10).

For claims 7-9, each of the terminals comprises a connecting portion having a plurality of clasps 74 for fastening a corresponding wire conductor and insulating jacket of the cable.

For claim 11, the details of the cavity 16 for the housing are seen in figure 10. For claims 15-17, the details of terminal and its connection to the wire are shown in figures 10 and 11, the cavity of the housing and the latch member are designed such that the terminal is retained within the cavity due to element 78.

For claims 18 and 19, the modified connector of Dinkel et al. would section larger than the opening of the silos and the clasps are adapted to clamp the wires.

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9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dinkel et al. (US 5,643,009) in view of Yamanashi et al. (US 5,183,418) and Fry et al. (US 5,595,509).

As discussed above, Dinkel et al. and Yamanashi et al. satisfies all the limitation of claims 10 and 11. However, Dinkel et al. and Yamanashi et al. do not disclose terminal having a pair of spring arms. Fry et al. in figure 4, discloses a terminal with a pair of spring arms. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a pair of spring arms on the terminal of Dinkel et al. as taught by Fry et al. so that the terminal can be locked in the cavity of the housing.

10. The prior art made of record and not relied upon is considered pertinent to applicant's invention. Suzuki et al. (US 5,470,258), Yamamoto et al. (US 5,358,431), Lundergan (US 4,944,688) and Hunt, III et al. (US 4,787,864 all disclose terminal locking arrangement for the connectors.

Applicant also should consider these references in response to this office action. Should issue arise concerning the rejection presented above, these references may be relied upon in a subsequent action to support the lack of novelty or obviousness of claimed subject matter to one of ordinary skill in the art.

#### ***Response to Arguments***

11. Applicant's arguments filed April 12, 2004 have been fully considered but they are not persuasive.

As pointed out in above, the amendment to claims 1 and 10, introduce new matter, and have been rejected based on the 35 USC 112, first paragraph. Also, the claims with the added limitations have been rejection based on newly added art of Yamanashi et al.

***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to T. C. Patel whose telephone number is (571) 272-2098. The examiner can normally be reached on 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 271-2092. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



T. C. Patel  
Primary Examiner  
Art Unit 2839

Tcp  
May 13, 2004